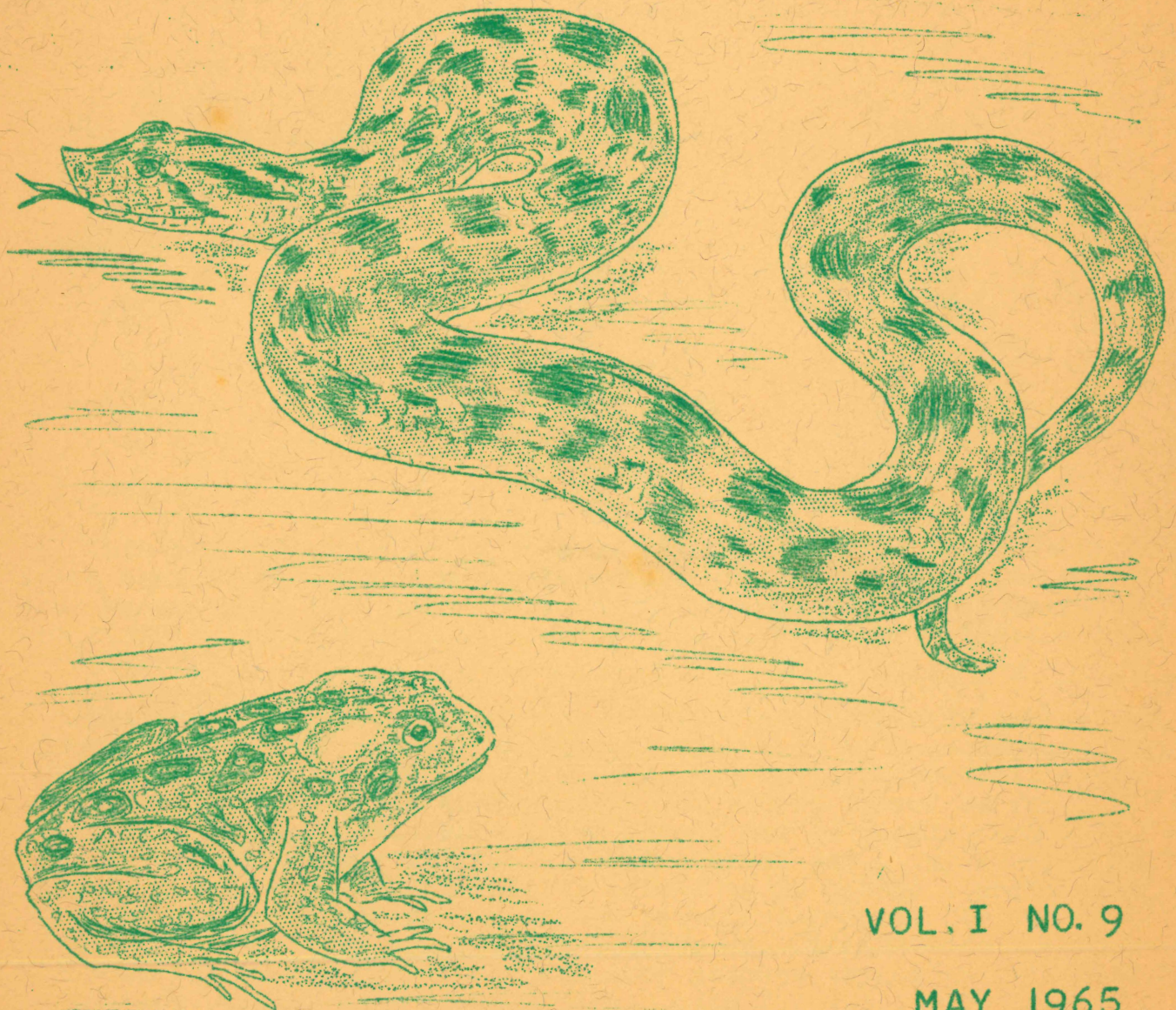


NATURE NOTES



VOL. I NO. 9

MAY 1965

"NATURE NOTES"

is published by

THE THAMES SCIENCE CENTER , INC.

Director & Editor : Roy A. Kennan

It is the purpose of this monthly bulletin, sent free of charge to all members of the Thames Science Center, to report on activities at the Center both in the month just past and in the months to come, to welcome new members to the organization, and to offer informational articles in the field of Natural Science.

CONTENTS
May 1965

Monthly Newsletter	Page 1
Summer Program	Page 2
NATURE NOTE : "Yellow - bellied Sea Snakes" by Lee Greiner	Page 6
NATURE NOTE : "The Hognosed Snakes", by Thomas Gause (see Ed. Note page 8).....	Page 7

MONTHLY NEWSLETTER
May 1965

Hello There !

This short Newsletter is to make way for our BIG Summer Program. We've sent it to members separately, and are restating it for anyone who may have lost their copy. Registrations are coming in fast and furious, so if you're hesitating..don't! Remember...first come, first served... *Please note changes -as of June 2nd —>*

The April school vacation week program was eminently successful, with a total of 128 people taking part. The trip to Tamaquag had to be cancelled from lack of reservations, but we'll schedule it again in the Fall...Herb Moran did it again, 60 people showed up for his visit with zoo animals...Dave Green turned out 32 people, and I'll bet we get many more next time..he did a great job....my buddy , Bill Cannon, showed about 200 beautiful slides to 12 people...maybe next time we can make it 12 slides to 200 beautiful people! (or at least 50 people)...the Harkness trip was a success, with 24 kids spread out all over the beach, and myself and four mothers trying to ride herd on the mob...after all, it IS Spring!...the P.S.W.S. trips that I attended were all great, and for me, educational...I figure that in about ten years I may begin to know a little about birds...

Roy A. Kennan

THE THAMES SCIENCE CENTER

622 WILLIAMS ST. - NEW LONDON

PRESENTS

— SUMMER PROGRAM —

JULY & AUGUST

1965



FIELD TRIPS

TO BEACHES

WOODS

PONDS

MARSHES

FIELDS

SWAMPS

STREAMS

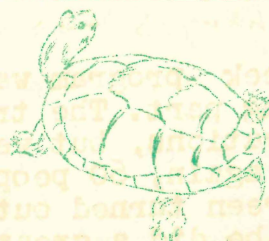
CLASSES OUTDOORS

IN OLD CLOTHES

SNEAKERS

BATHING SUITS

OBSERVING, COLLECTING, LEARNING ABOUT



TUITION

MEMBERS \$7.00 NEW MEMBERS \$9.00

FOR FOUR WEEKS OF FUN & LEARNING!

INTERESTED?

PHONE 443-4295, 1 TO 6 P.M., TUES THRU SUNDAY

REGISTRATIONS CLOSE JUNE 19TH!

SUMMER PROGRAM - 1965

During the months of July and August the Science Center will offer a total of eight classes to its members and the public. This program of Natural Science education is being offered in response to the enthusiasm shown by participants in last summer's program under Mr. Jack Emery.

As a result of the Trial Merger now in effect between the Science Center and the Pequot-sepos Wildlife Sanctuary, members of the Sanctuary will receive the member rate for class registrations.

TEACHING STAFF

Mr. Jack Emery of Farmington, Conn., who so successfully conducted last summer's program, will teach Exploring Nature.

Mr. Roy A. Kennan, Director of the Science Center, will teach Seashore Biology and Reptiles, Amphibians & Freshwater Biology.

Mr. Robert F. Kunz, Curator of the Pequot-sepos Wildlife Sanctuary, will teach two sessions of each class. His theme will be Conservation and he will compare and contrast Natural vs. Managed Areas. In this way the Science Center will bring Conservation education to every child enrolled in the Summer Program.

COURSE OFFERINGS

SESSION ONE - July 6 thru July 30

~~COURSE NO. 1~~ - Exploring Nature for those completing Grades 1, 2 & 3.
The class will meet Tuesdays & Thursdays at 9 A.M.

Field trips will be made to various types of natural areas, such as tidal marsh, swamp, oak-hickory forest, old field, pond and brook. Children will learn to identify some of the plants and animals found in each type of habitat. They will assist in collecting specimens with which to stock fresh and salt water aquaria, terraria and insect cages maintained at the Center. These, especially the aquaria, will be used to demonstrate the relationships between species of animals and their adaptations to their environment (the "Web of Life" concept). For indoor work on rainy days nature crafts will be taught along with methods of mounting and preserving insects, pressing plants and the study of flowers and seeds.

COURSE NO. 2 - Exploring Nature for those completing Grades 4, 5 & 6.
The class will meet Wednesdays & Fridays at 9 A.M.

Through field trips and collecting, as outlined under Course No. 1 above, students will learn to identify some plants and animals from each type of habitat. Some elementary concepts of Ecology will be worked in as interrelationships between plants, animals and their environment are pointed out. These relationships will be further demonstrated in the aquaria and terraria. Reptiles, amphibians and insects will also be collected for observation. Each student will learn how to start an insect collection and a leaf collection and will be taught other nature crafts and skills.

COURSE NO. 3 - Seashore Biology for those completing Grades 4, 5 & 6.
The class will meet Tuesdays & Thursdays at 9 A.M.

In this course field trips will be made to local sandy beaches, rocky shores, mud flats and salt marshes. Emphasis will be on observing and identifying the many life forms found at the shore, in the intertidal zone, on the beach and in the dunes. The students will see ways in which these plants and animals are adapted to living in a harsh and constantly changing environment. Each pupil will start his or her own shell collection and the class will set up marine aquaria with live materials collected on the field trips. The basic principles of aquarium management will also be discussed.

COURSE NO. 4 - Seashore Biology for those completing Grades ^{1, 2 & 3} ~~7 & 8~~.
The class will meet Wednesdays & Fridays at 9 A.M.

Field trips, as outlined under Course No. 3 above, will make up this course. In addition to observing, collecting and identifying organisms the students will take environmental measurements such as salinity, turbidity, light intensity, tidal range, current flow, etc. This will introduce them to practical applications of science being taught in school. The concept of Ecology will be introduced through food chains, interrelationships between organisms and adaptations to the environment studied. The above course will be given at the 1, 2 & 3 Grade level.

SESSION TWO - August 3 thru August 27

COURSE NO. 5 - Exploring Nature for those completing Grades 4, 5 & 6.
The class will meet Tuesdays & Thursdays at 9 A.M.

This will be a repeat of Course No. 2, outlined previously. This second section is planned to accomodate a large enrollment at this age level.

COURSE NO. 6 - Exploring Nature for those completing Grades 7 & 8.
The class will meet Wednesdays & Fridays at 9 A.M.

The class will stress Ecology, the relationships between plants, animals and their environment. Man's place in this picture will be emphasized. Field trips will be made to areas representing different ecological communities such as tidal marsh, swamp, oak-hickory forest, old field, pond, hemlock ravine and brook. Insects, mammals, birds, trees, shrubs, flowers and Geology will be studied in connection with each community. Rainy day work will include microscope study as well as nature crafts. Some elementary study of the classification of plants and animals (Taxonomy) will be included.

COURSE NO. 7 - Reptiles, Amphibians & Freshwater Biology for those completing Grades 1, 2 & 3, to meet Tuesdays & Thursdays at 9 A.M.

Field trips to woods, fields, ponds and streams will place emphasis on observing frogs, toads, newts, salamanders, turtles and snakes plus a study of pond life. The class will learn to identify the various non-poisonous snakes and will stock aquaria and terraria at the Center with live specimens collected in ponds and streams in the area. Also studied will be the problems of keeping reptiles and amphibians in captivity.

COURSE NO. 8 - Reptiles, Amphibians & Freshwater Biology for those completing Grades 4,5 & 6, to meet Wednesdays & Fridays at 9 A.M.

This course will consist of field trips as outlined under Course No. 7 above. The students will be introduced to keying as a method of identifying unknown animals and will construct a key for the snakes of Connecticut, as well as conducting a survey of a local pond and stream. Various measurements of the environment will be made, such as temperature, light intensity, pH, current flow, turbidity, etc.

CERTIFICATE

Each student successfully completing a course this summer will receive a Certificate of Completion from the Science Center.

OPEN HOUSE

At the close of each session of the Summer Program, on July 31 and August 28, from 7 to 9 P.M. an Open House will be held at the Center for parents and children enrolled in the program. These Saturday evening meetings will give parents an opportunity to see the results of projects carried out by their children. Refreshments will be served.

CLOTHING

Almost all classes will be held outdoors, so it is advisable that students wear clothes that can stand getting wet or muddy. Shorts or bathing suits are recommended for Seashore Biology classes and slacks or dungarees for all other classes. In each case sneakers or other canvas shoes should be worn so feet that get wet can dry out again.

TRANSPORTATION

Because the Science Center does not own a vehicle it is requested that parents volunteer to help with transportation on field trips. In order to avoid overburdening a few it is hoped that each parent will plan to drive once during a course.

PERMISSION SLIPS

As there will be many field trips for each course, a blanket Permission Slip has been included on the registration form.

EQUIPMENT

Each student will be provided with a kit as a part of their course, consisting of an appropriate text, field notebook, class notebook, pencils and a hand lens. The kit will be the student's to keep and the cost is covered by tuition fees.

TUITION

Fees will be \$10 for non-members and \$7 for members of the Center or the Pequot-sepos Wildlife Sanctuary. Students taking out a membership in the Science Center when enrolling for a class will pay \$2 for the membership and \$7 for the class, thereby saving \$1 over the non-member registration fee.

REGISTRATION

All classes will be open to a maximum of twelve students, and applications will be processed on a first come, first served basis. Registrations will CLOSE on June 19th. Any class receiving 6 or less registrations may be cancelled and the fees refunded. There will be no refunds for dropouts after the first meeting of any class.

REGULATIONS

Students MUST be at the Center BY 9 A.M. for classes. Because there is much to learn and time is short there will be no waiting for tardy pupils. All classes will run from 9 A.M. to 11 A.M.

The teaching staff reserves the right to expell any pupil who through lack of cooperation causes the progress of the class to suffer. In this case there will be no refund of fees, nor any Certificate issued.

INFORMATION

Anyone desiring further information about the Summer Program is asked to phone the Center (443 - 4295) between 1 and 6 P.M., Tuesday thru Sunday.

.....Cut on dotted line.....

THAMES SCIENCE CENTER - SUMMER PROGRAM 1965

Name Street.....

City School.....Phone.....

Grade completed..... If a new membership is desired, check here ☐

COURSE NO..... Title

SESSION Dates given

FEES : Member \$7.00 ☐ ; New Member \$9.00 ☐ ; Non-member \$10.00 ☐

Please make checks payable to THAMES SCIENCE CENTER and send to
622 Williams Street , New London , Conn. 06320

I hereby give permission for the child named above to participate in all field trips from the Thames Science Center connected with the above Course and release the Center and its teaching staff from any and all liability regarding any injury sustained by my child during said Course.

Signed

If you are willing to drive on field trips please check here ☐

NATURE NOTE - MAY 1965

The Hognosed Snakes

by

Thomas S. Gause , Wilmington , N. Carolina

With the advent of Spring nature lovers in many parts of our country are in for a herpetological treat. Warm weather brings forth from his winter hibernation the comical Hognosed Snake.

This reptile, which has three "branches" to his family, is not only somewhat of a clown, but also a fine pet for those inclined to keep such an unusual creature.

The member of the group common to Connecticut is Heterodon platyrhinos, the Eastern Hognosed Snake, who grows to an average length of about two feet. The coloring of this snake is quite variable, with the background color ranging from black to brown, tan or yellow. Blotches of brown, black or gray run down the back in a manner not unlike the markings of the Rattlesnakes, with which he is often confused by those who don't stop for a closer look.

If you should happen to meet up with a Hognosed Snake in the woods and attempt to pick him up, or molest him so that he feels cornered, you are in for a show! He will hiss menacingly, spread his head and neck in a Cobra-like manner, and even strike...with his mouth closed tight! One thing you may feel sure of, the Hognosed Snake (or Puff Adder, or Spreading Adder, to throw in a few of his aliases) will NOT bite you!

After this very impressive show of viciousness, if you don't go away, the charlatan will proceed to go into "convulsions", thrash about and then roll over on his back...For all the world to see, he is dead! Or is he?...If you turn him over he will immediately throw himself on his back again! You guessed it, he's playing 'possum. If you step back and stay quiet for a few minutes this Shakespearean actor will gather himself together and quietly crawl away.

The combination of events related above constitute one of the outstanding examples of protective behavior found in nature. If you can't scare them away...drop dead!

The other two branches in the Hognosed family are the Southern Hognosed Snake, found from North Carolina to Florida and Mississippi, and the Western Hognosed Snake, found from Illinois to Mexico, and further broken into three subspecies. Although coloration and pattern varies, all Hognosed Snakes have in common the above behavior and a sharply upturned snout that is nicely adapted for digging.

Digging is an important pasttime for these snakes, because their principal food, in fact just about their only food, is another digger, the Toad. One great problem in trying to keep Hognosed Snakes in captivity is this specialized diet. Summertime poses no great problems other than going out at night after a rain with flashlight to hunt

toads. But when Fall and Winter come you're in for trouble unless you've been lucky enough to own a Hognose who can be fooled. Many professional herpetologists, faced with such a diet problem for their snakes, rub a toad on a piece of beef heart or liver and then offer it to the Hognose; in many cases the snake will gobble up the meat, thinking he is getting a toad. This is one of the facts that lead scientists to believe that a lot of the snake's hunting ability depends on scent rather than sight.

If this article has lead you to the point where you want to have a Hognosed Snake for a pet, please remember a couple of important rules :

1. If you decide to go snake hunting, be sure you know what the poisonous snakes in your area look like and where they are apt to be found. Many people are bitten each year because they pick up pretty but poisonous snakes. The Timber Rattlesnake and the Northern Copperhead are both blotched with a pattern similar to the Hognosed Snake, and although a close look will show the pit of the pit viper between the eye and the nostril of the poisonous ones, a quick grab might be disastrous!

2. If you do manage to obtain a snake, harmless variety, for a pet, remember that they have certain requirements as to housing and diet and they can't very well tell you when things aren't right for them...other than by dying. Make sure that they have a dish of water available to them at all times, not only for drinking, but big enough to crawl into and soak. This is important when they are getting ready to shed their skin. Also realise that snakes are cold-blooded, which means that they have no built-in thermostats as we have, and will freeze or roast at the mercy of their environment. In Nature they hide under cool rocks or leaves or bury in the ground to escape the heat in Summer, and bury and hibernate in Winter to escape freezing. Make sure that your snake's home isn't left where direct sunlight will overheat it in Summer or where extreme cold will freeze it in Winter.

Hognosed Snakes kept in captivity soon become quite tame, and rather than continuing as Shakespearean actors give up all such unseemly behavior and are just snakes.

ED. NOTE : Mr. Gause is a friend I met last Summer in North Carolina who has been very nice about sending me copies of articles he has written for his use in Boy Scout activities. He has also managed to send along a few snakes, lizards and turtles so far this year, and has promised more of the same!...So if any of you who come to visit the Center find a North Carolina flavor in some of the live exhibits, we owe it all to Tom Gause.

NATURE NOTE - MAY 1965

YELLOW - BELLIED SEA SNAKES

by

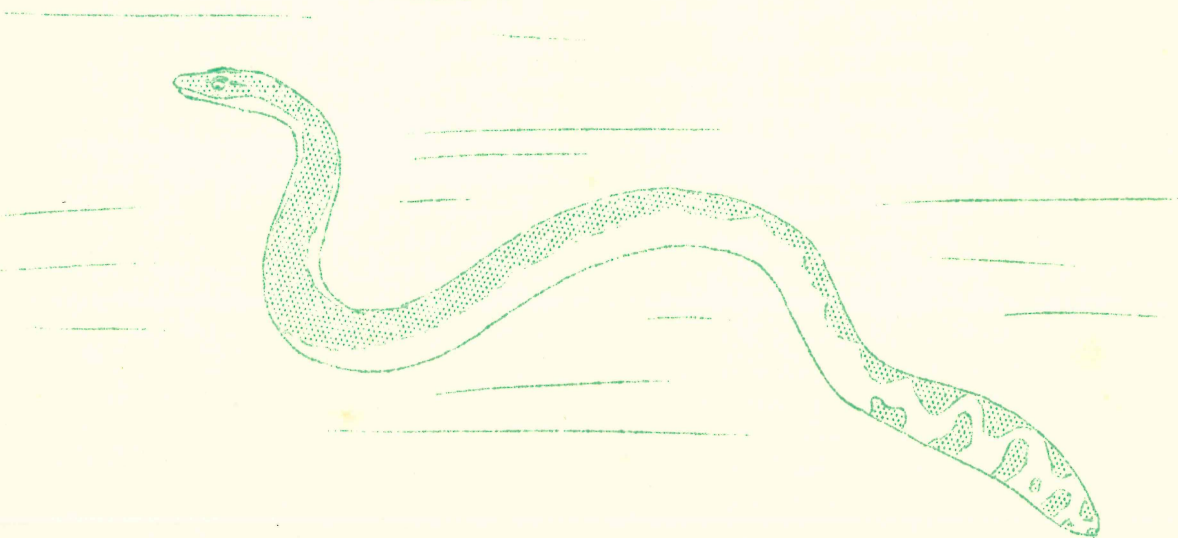
Lee Greiner , New London

Yellow - bellied Sea Snakes are marine relatives of the Cobra, inhabiting the Indian and Pacific Oceans. Belonging to the family Hydrophiidae, sea snakes are distinguished by valvular nostrils on top of the snout and by vertically flattened tails. These modifications allow the snake to breathe and to navigate. The snakes have brown or black backs contrasted with bright yellow bellies.

All fifty-five species are poisonous. Sea snakes are divided into two sub-families : Laticandinae, whose members have greatly reduced ventral shields ; and Hydrophinae, whose members have no ventral shields. Members of the Laticandinae lay their eggs on Australian beaches, being oviparous, while members of Hydrophinae bear living young while at sea, being viviparous.

Sea snakes attain a length of three to four feet, except for Hydrophis cyanocinctus which can reach eight feet. The only fresh water species, Hydrophis semperi, lives in Lake Taal on the island of Luzon in the Philippines.

Since sea snakes have a very small mouth, which can grab only very small objects, few people have been bitten. For instance, a sea snake has to bite a small fold of skin to inject its poison. The venom is so toxic, however, that a sea snake bite would usually be fatal.



THAMES SCIENCE CENTER
622 Williams Street
New London, Conn. 06320

NATURE NOTE - MAY 1965
YELLOW BELLIED SEA SNAKE - VOLUNTARY
by
Lee Greiner, New London

NON-PROFIT ORG.
U. S. Postage
PAID
Quaker Hill, Conn.
Permit No. 9

Yellow-bellied Sea Snakes are marine relatives of the Coon-
inhabiting the Indian and Pacific Oceans. Belonging to the family
Hydrophiidae, sea snakes are distinguished by various nostrils on
top of the snout and by vertically flattened tails. These modifica-
tions allow the snake to breathe and to navigate. The snakes have
brown or black backs contrasted with bright yellow bellies.

Snakes are divided into
two sub-families: the
have greatly reduced
have no ventral
eggs on Australian
phins bear living

The Kashanski Family
74 Oil Mill Rd.
Waterford, Conn.

All fifty-five
two sub-families: the
ventral shields; at
shields. Members of
beaches, being oviparous
young while at sea, being viviparous.

Sea snakes attain a length of three to four feet, except for
Hydrophis cyanocinctus which can reach eight feet. The only fresh
water species, Hydrophis semperi, lives in Lake Tsal on the island
of Luzon in the Philippines.

Since sea snakes have a very small mouth, which can grasp only
very small objects, few people have been bitten. For instance, a
sea snake has to bite a small fold of skin to inject its poison. The
venom is so toxic, however, that a sea snake bite would usually be
fatal.